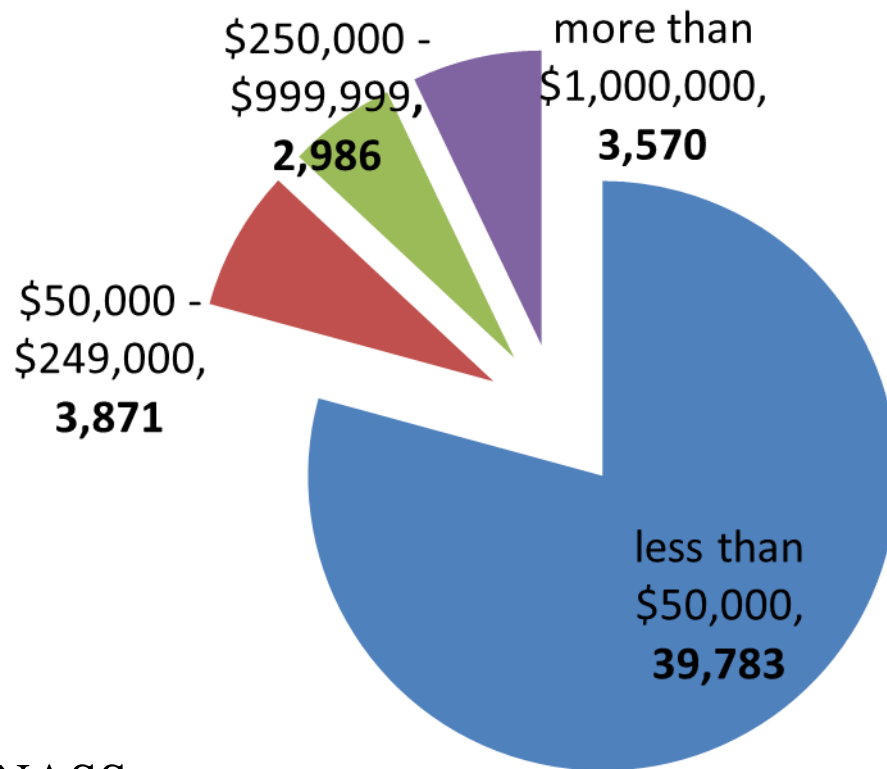


# NC Ag Situation & Outlook 2016: Global Connections

**Dr. Blake Brown**  
**Hugh C. Kiger Professor**  
**Agriculture & Resource Economics**  
**College of Agriculture & Life Sciences**

# NC had 50,210 farms in 2012

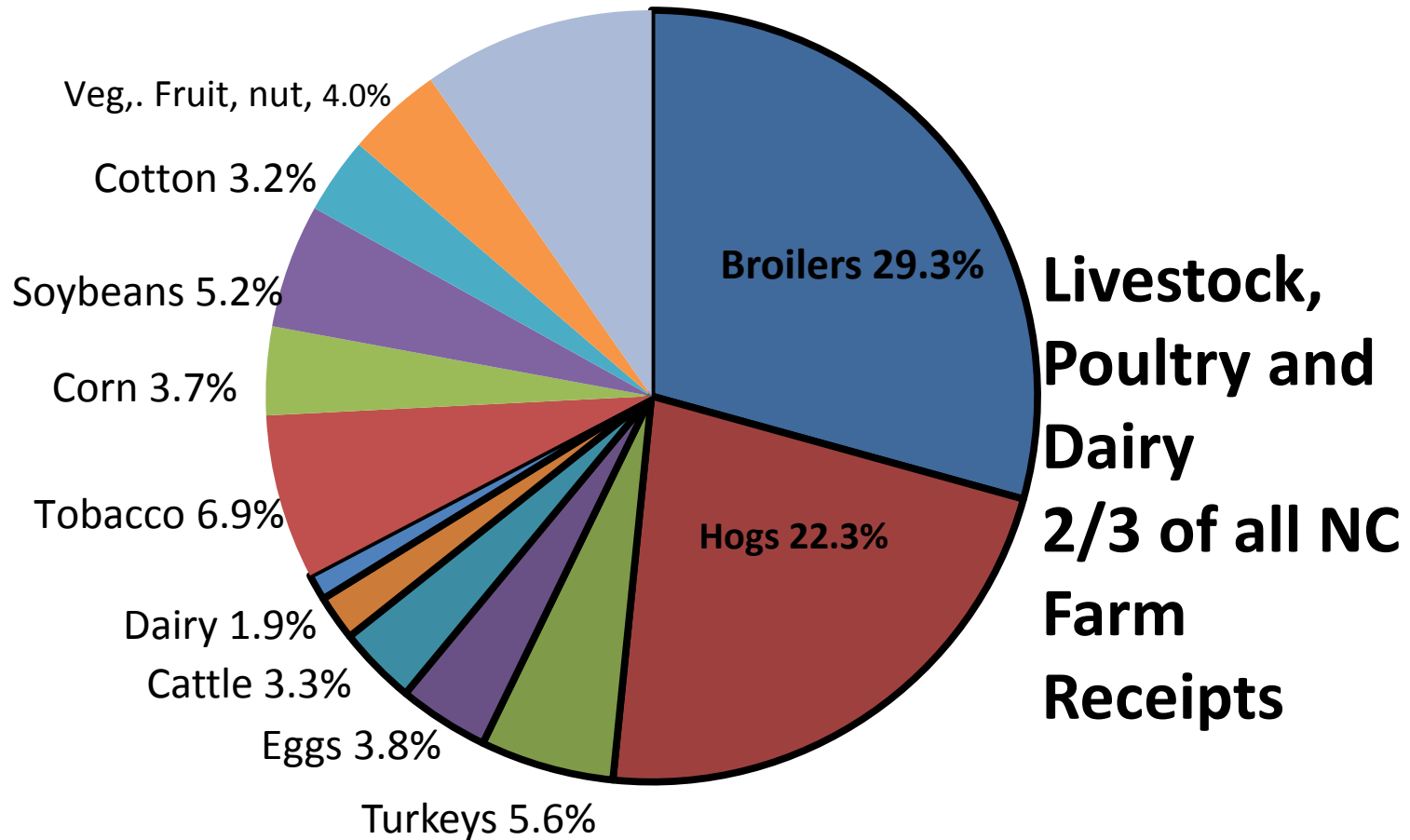
## Average Farm Acreage: 168



Source: USDA-NASS

# NC Agriculture is Diverse

## 2014 NC Cash Receipts from Farming



Source: NC Ag Statistics Yearbook 2015

## **“High on the Hog: Farm Income Soars”**

“Bumper Corn, Soybean Harvests Help Raise Outlook”

“Farm incomes in America are expected to hit their highest level in four decades this year...”

*Wall Street Journal* November 26, 2013

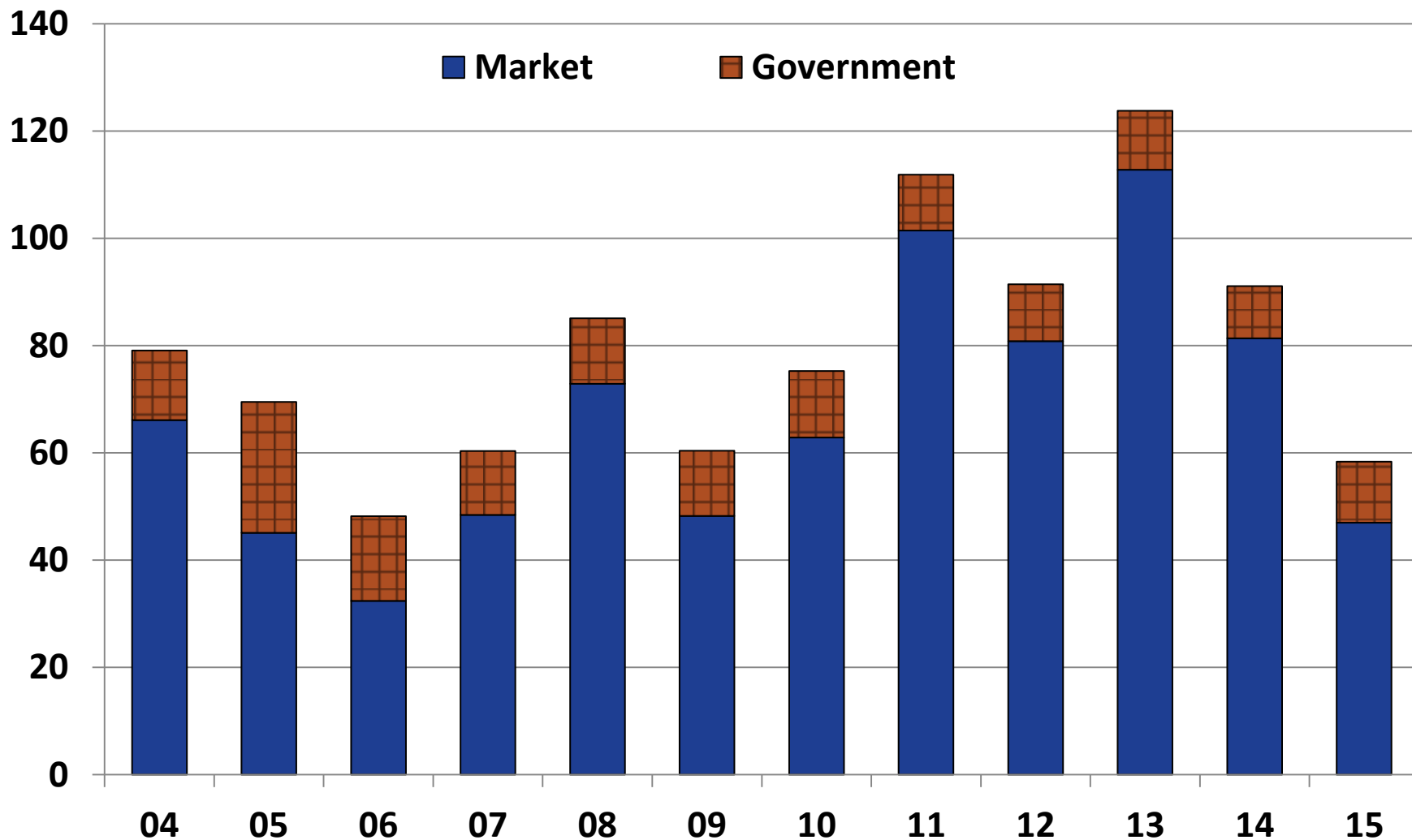
## **“U.S. Farm Income to Fall to Lowest Level in Nine Years”**

“USDA predicts a 36% decline amid a slump in commodity prices and another large harvest”

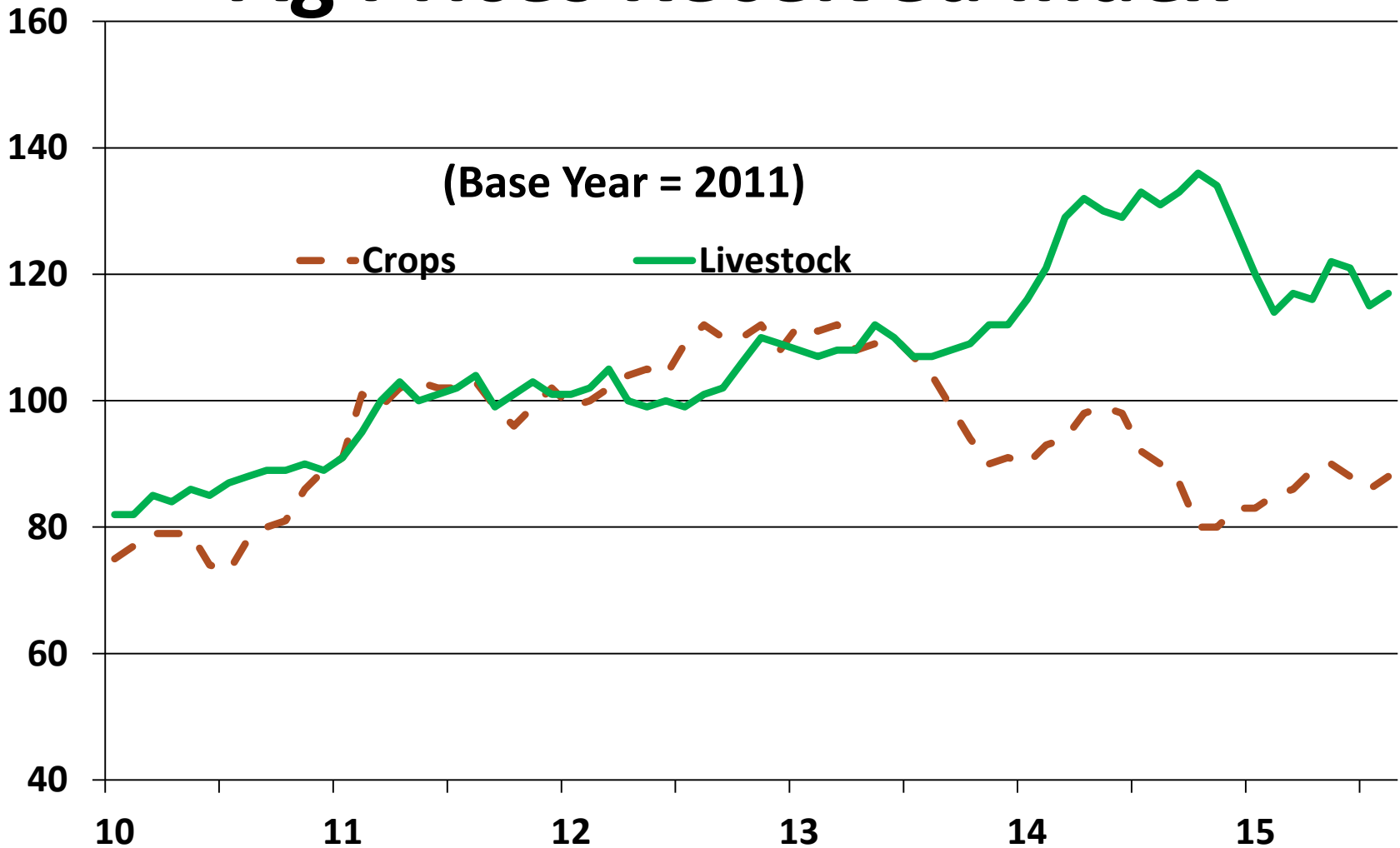
*Wall Street Journal*, August 25, **2015**

# U.S. Net Farm Income

\$ Billions



# Ag Prices Received Index



# OECD Interim Economic Outlook: Key messages

February 18, 2016

## Stronger global growth remains elusive

- Weak trade, investment, and commodity prices
- Disappointing incoming data on demand conditions
- Low inflation and poor wage growth

## Financial instability risks are substantial

- Steep declines in global equity markets
- Volatile capital flows and high debt exposures in EMEs

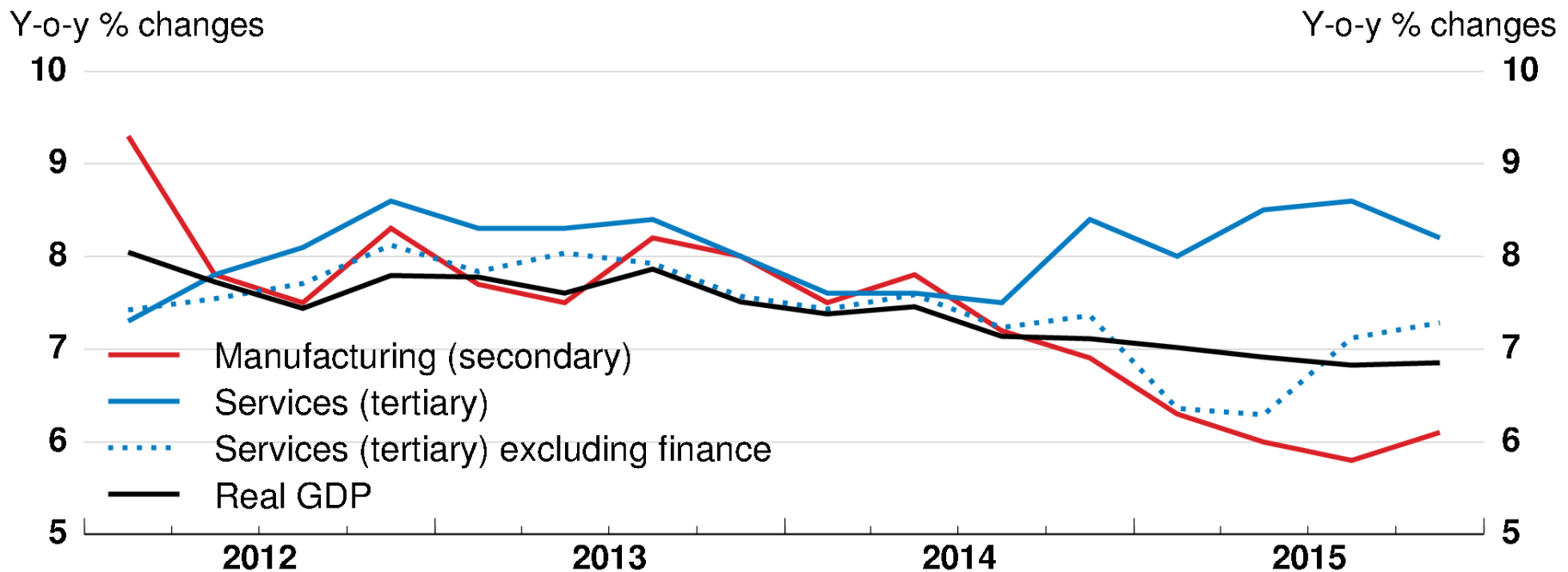
## Collective policy action is urgent

- Maintain accommodative monetary policy
- Focus supportive fiscal policies on investment-led spending
- Revive pace of productivity- and growth-enhancing structural reforms



# OECD Interim Economic Outlook: Rebalancing in China and financial volatility are dragging on global markets

## Composition of growth in China

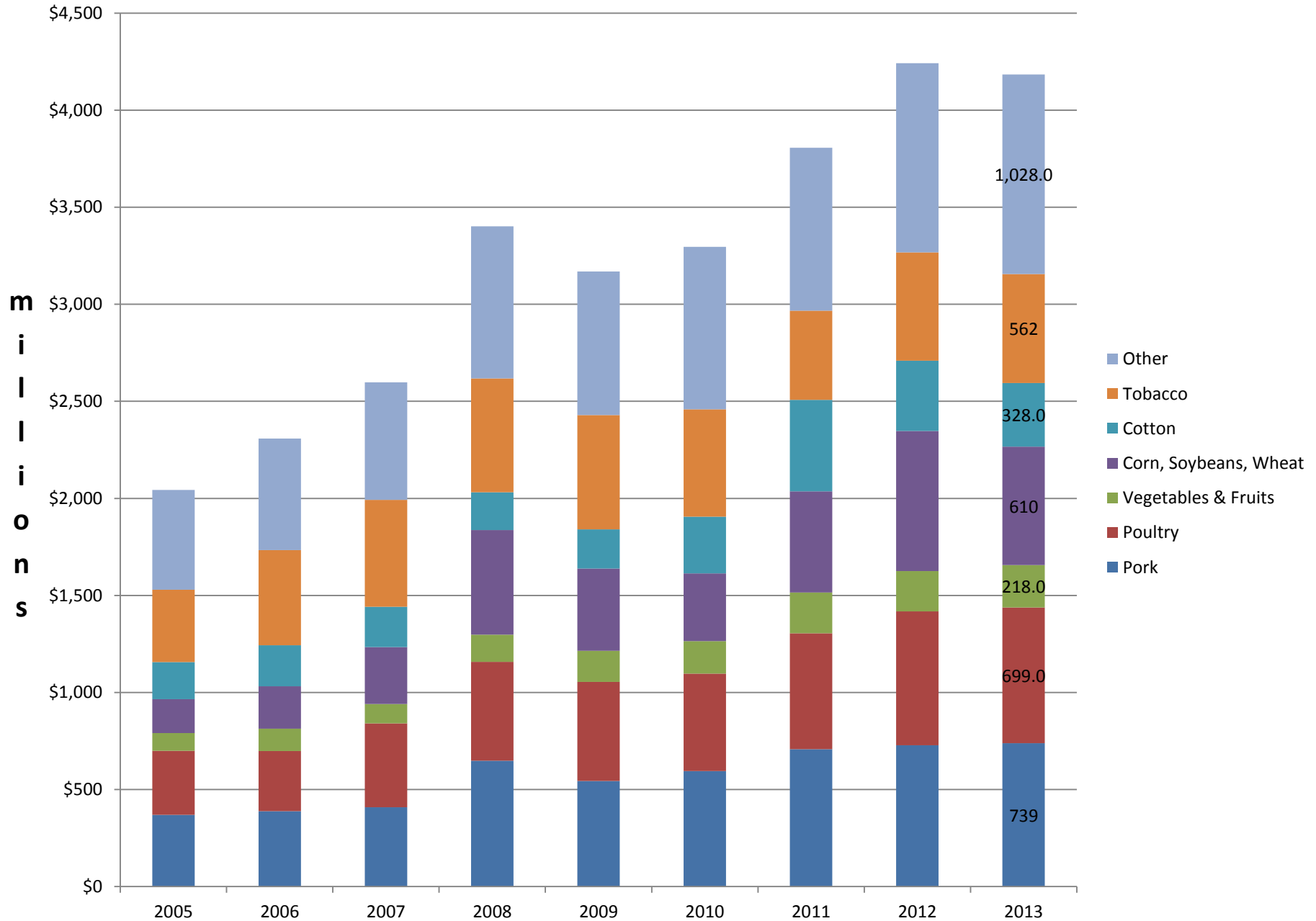


Note: Manufacturing (secondary) includes construction.

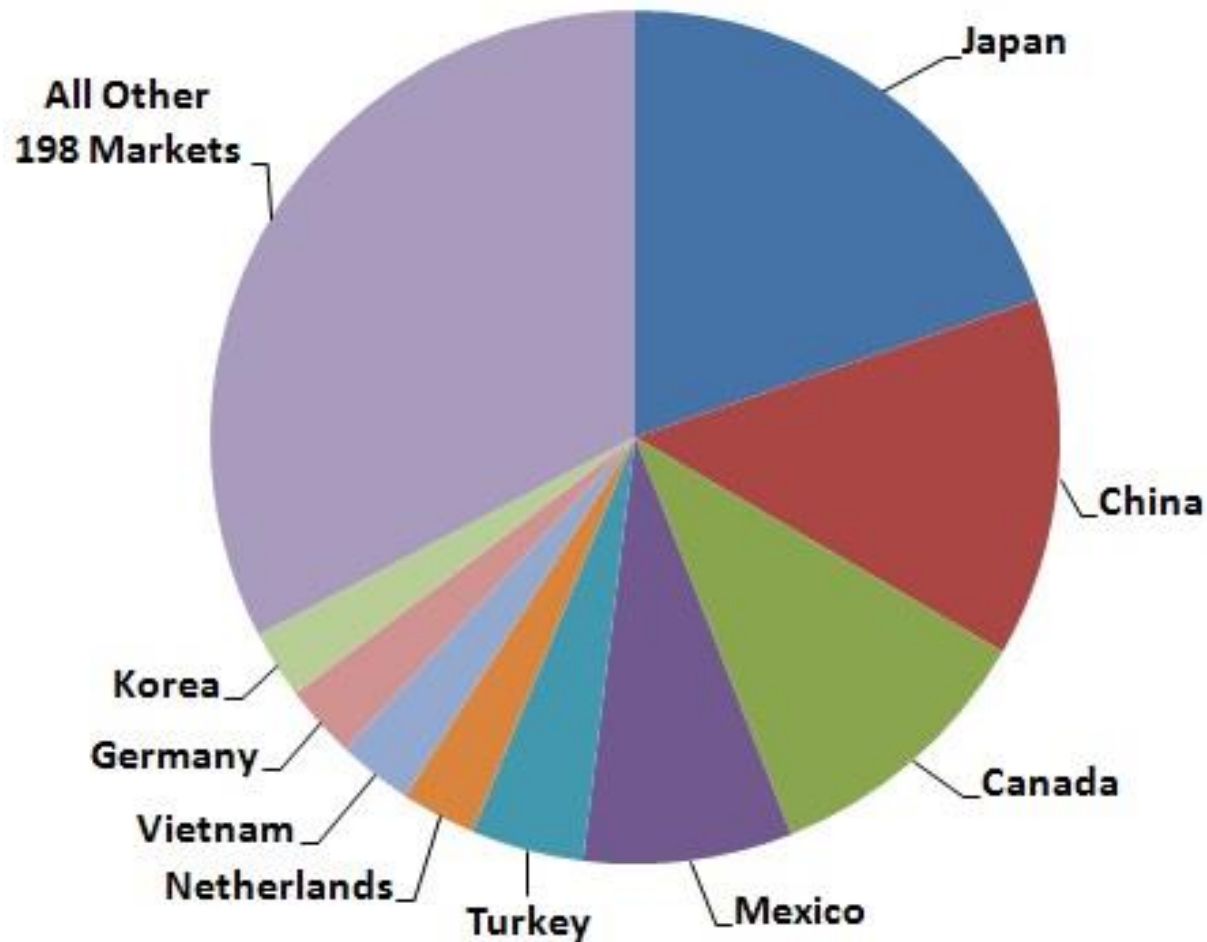
Source: Chinese National Bureau of Statistics; People's Bank of China; and Thomson Reuters.

Exports are vital to US & NC  
Agriculture

# NC Agricultural Exports

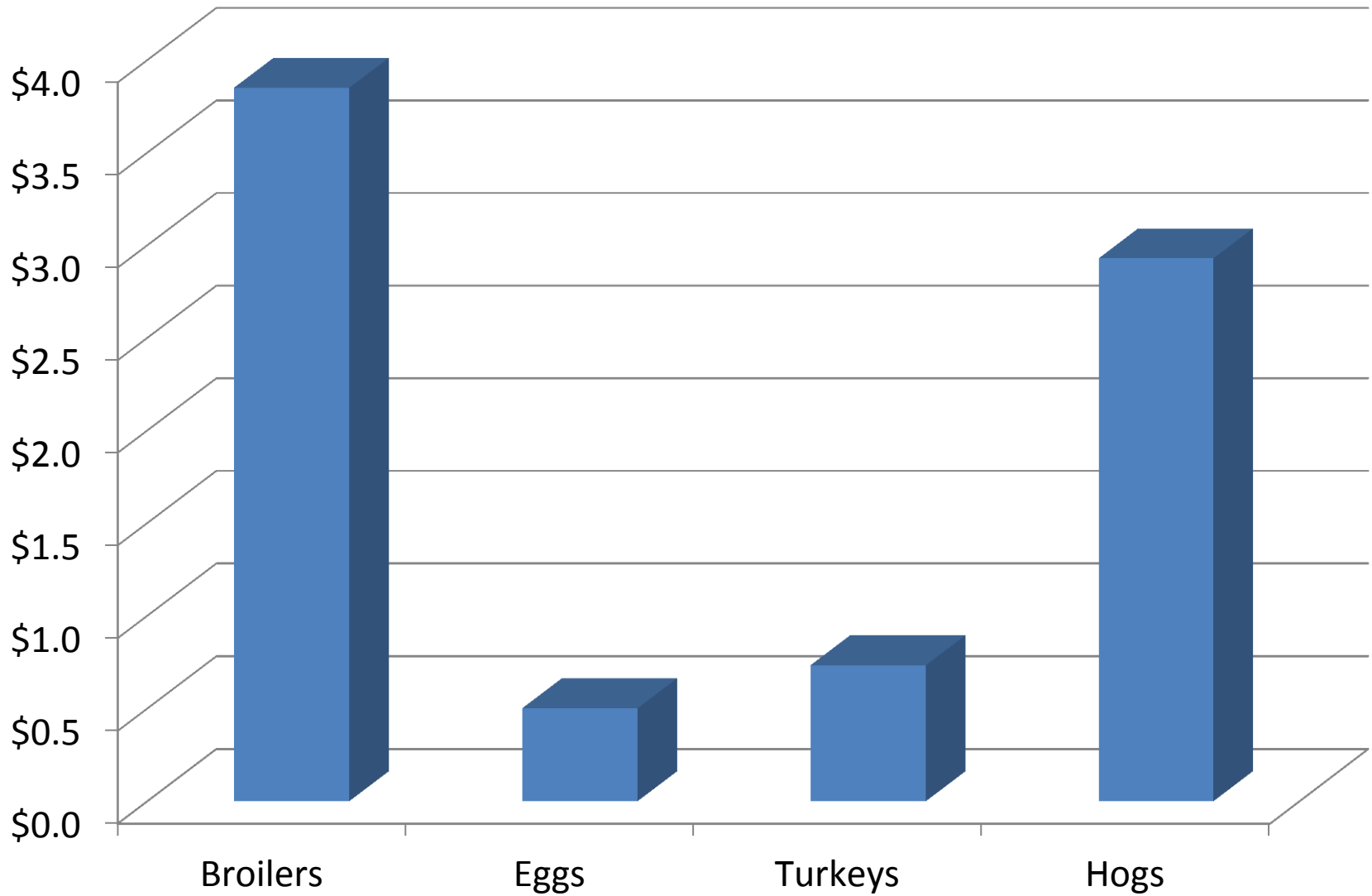


# 2012 NC Agricultural Export Markets



# NC Hogs and Poultry

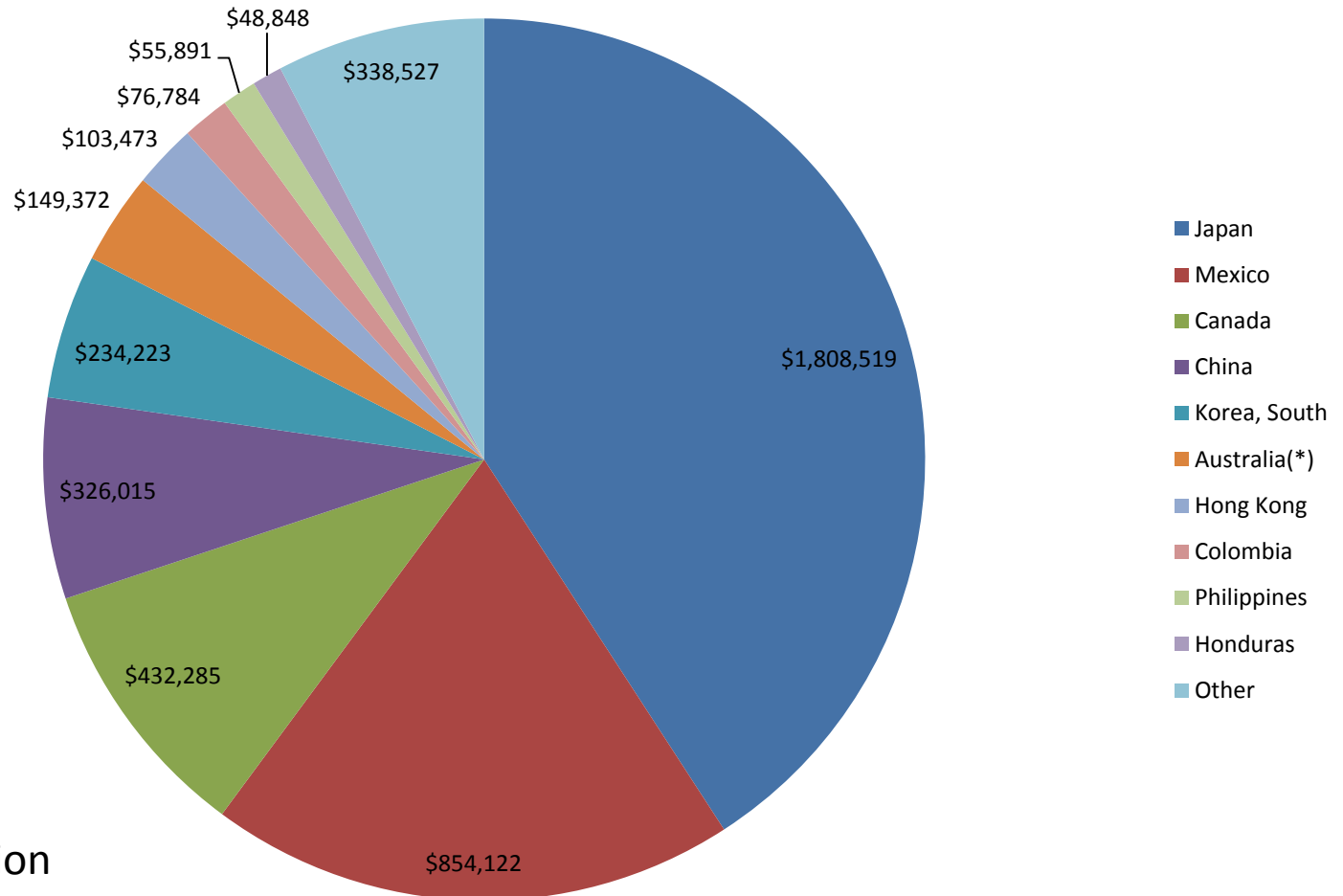
## \$ billion 2014 Cash Receipts



# US Meat Production and Prices

|                             | 2014                  | Estimated<br>2015             | Projected<br>2016           | % Change<br>2016 from 2015 |
|-----------------------------|-----------------------|-------------------------------|-----------------------------|----------------------------|
| <b>Production</b>           | <b>Billion Pounds</b> |                               |                             |                            |
| <b>Beef</b>                 | <b>24.32</b>          | <b>23.75</b>                  | <b>24.64</b>                | <b>+3.75%</b>              |
| <b>Pork</b>                 | <b>22.86</b>          | <b>24.517</b>                 | <b>24.98</b>                | <b>+1.88%</b>              |
| <b>Broilers</b>             | <b>38.14</b>          | <b>39.61</b>                  | <b>40.59</b>                | <b>+2.5%</b>               |
| <b>Turkey</b>               | <b>5.76</b>           | <b>5.63</b>                   | <b>5.94</b>                 | <b>+5.5%</b>               |
|                             |                       | Source: USDA WASDE (Feb 2016) |                             |                            |
| <b>Prices</b>               |                       |                               |                             |                            |
| <b>Feeder Cattle \$/cwt</b> | <b>202.82</b>         | <b>202.52</b>                 | <b>176-185</b>              |                            |
| <b>Live Cattle \$/cwt</b>   | <b>154.56</b>         | <b>149.19</b>                 | <b>136-147</b>              |                            |
| <b>Hogs \$/cwt</b>          | <b>76.03</b>          | <b>50.23</b>                  | <b>46-49</b>                |                            |
| <b>Broilers cents/lb</b>    | <b>104.90</b>         | <b>90.50</b>                  | <b>85-90</b>                |                            |
| <b>Turkeys cents/lb</b>     | <b>107.90</b>         | <b>116.20</b>                 | <b>110-118</b>              |                            |
|                             |                       |                               | Source: USDA-ERS (Nov 2015) |                            |

# U.S. Pork Exports: 2013 Value & Destinations



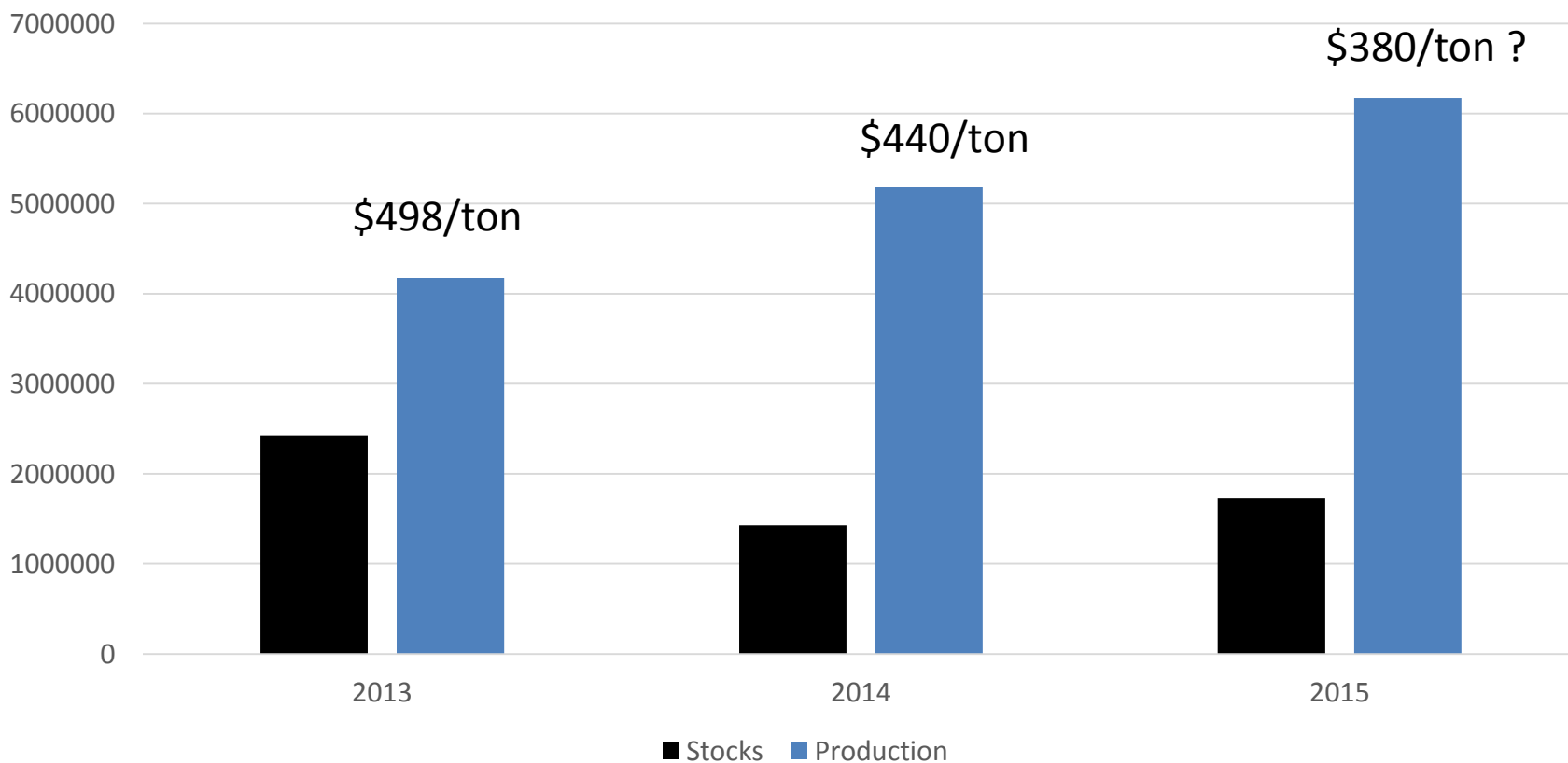
Exports: \$4.4 billion

Production: \$14.3 billion

| Specialty Crops        | 2014 Cash Receipts<br>\$ million |
|------------------------|----------------------------------|
| Tobacco                | \$912                            |
| Sweet Potatoes         | \$355                            |
| Peanuts                | \$94                             |
| Blueberries            | \$78                             |
| Christmas Trees (2012) | \$75                             |
| Squash                 | \$37                             |
| Potatoes               | \$36                             |
| Watermelons            | \$35                             |
| Strawberries           | \$29                             |
| Cucumbers              | \$29                             |



# US Peanut Stocks (as of Aug 30) and Production

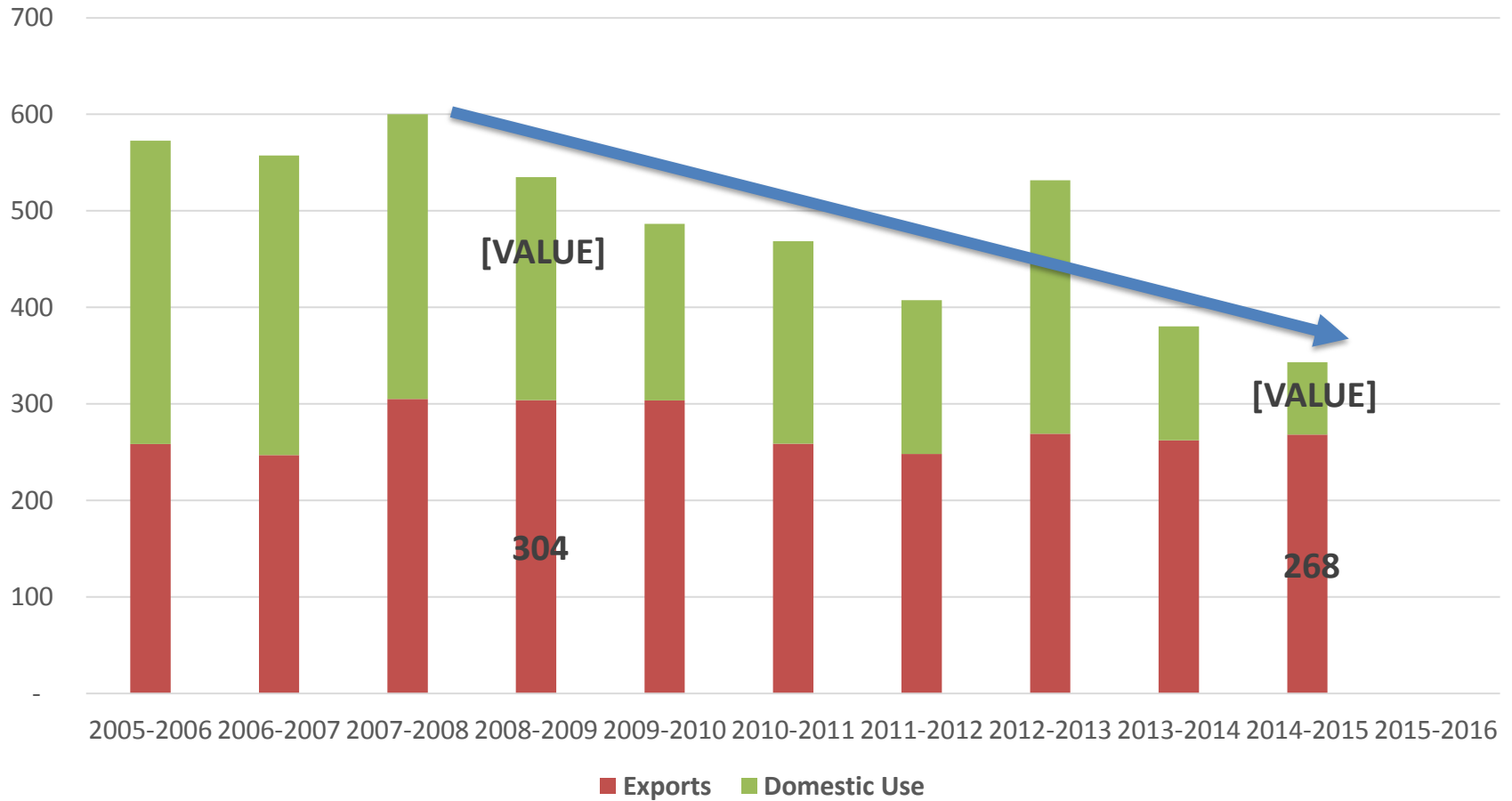


# Flue-Cured Tobacco Production: (million pounds)

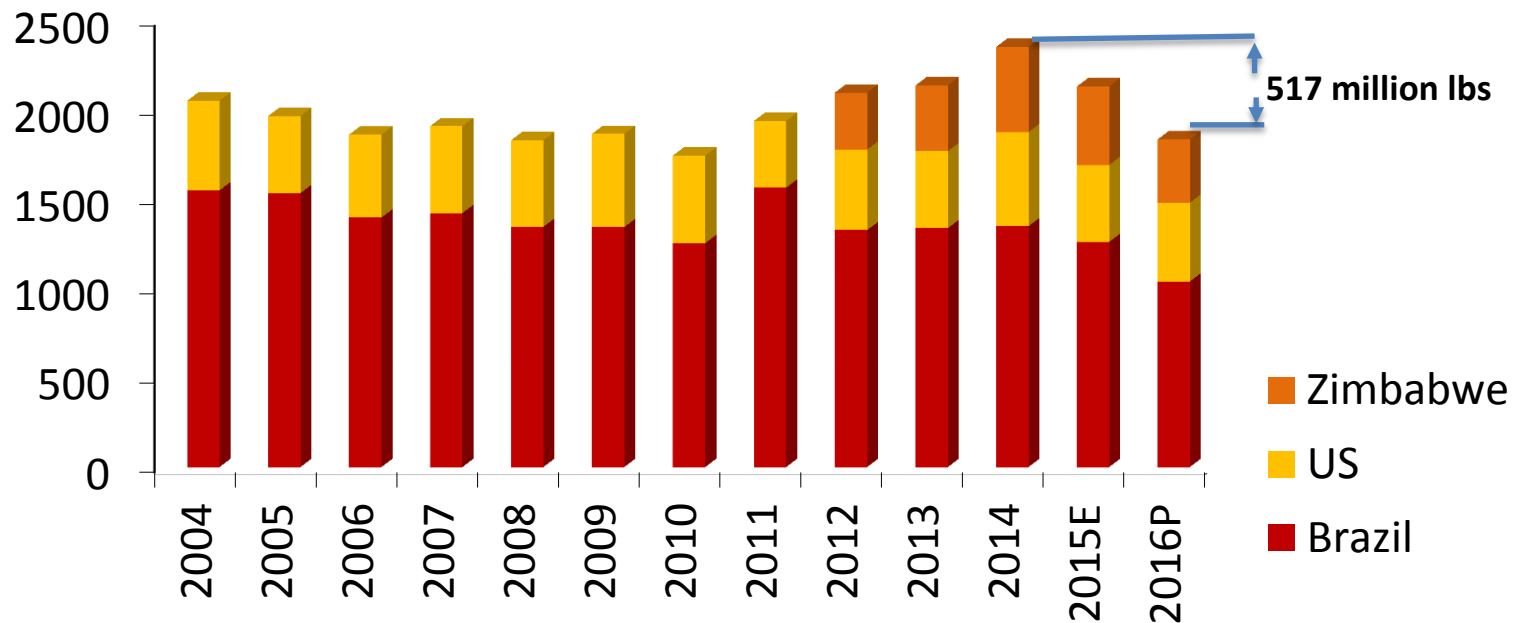
|           | <b>2011</b> | <b>2012</b> | <b>2013</b> | <b>2014</b> | <b>2015*</b> |
|-----------|-------------|-------------|-------------|-------------|--------------|
| <b>US</b> | <b>345</b>  | <b>473</b>  | <b>454</b>  | <b>557</b>  | <b>468</b>   |
| <b>NC</b> | <b>248</b>  | <b>377</b>  | <b>360</b>  | <b>434</b>  | <b>365</b>   |

\*USDA-NASS October 2015 Estimate

# US Flue-Cured Exports and Domestic Disappearance

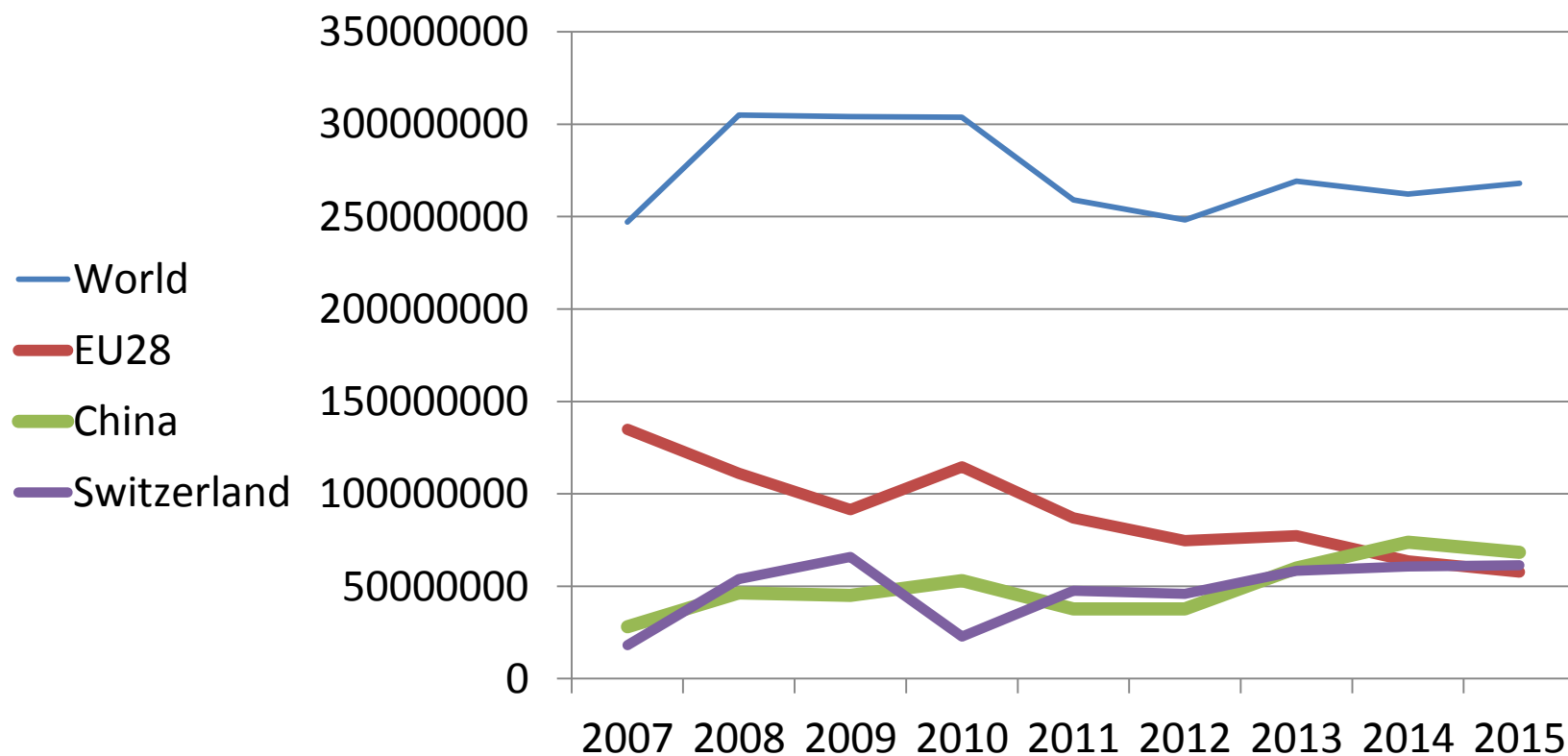


## Global Supply: U.S., Brazil and Zimbabwe Flue-Cured Tobacco Production



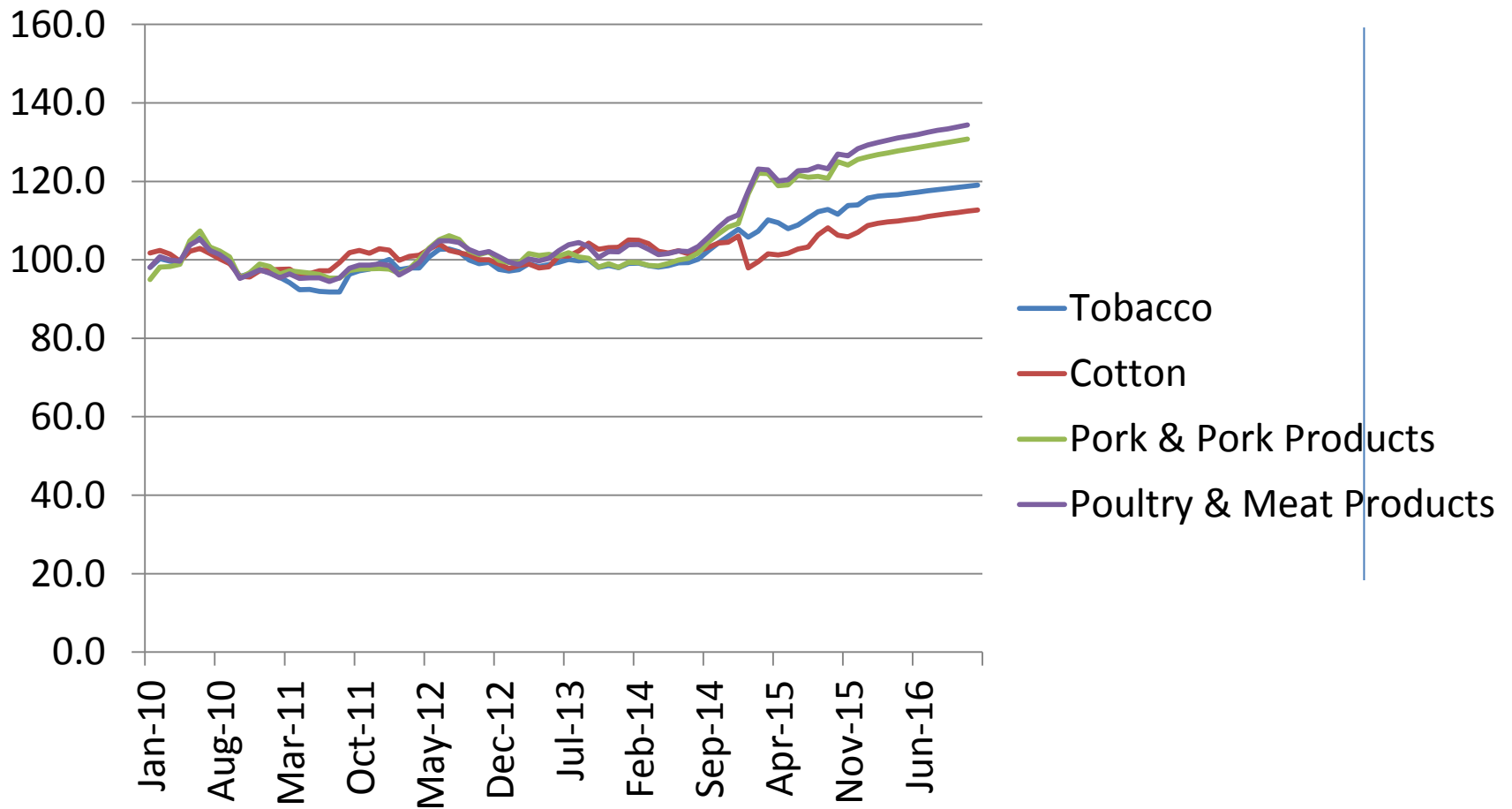
Source Brazil & U.S.: Universal Corporation. "World Leaf Production as of Nov 4, 2015."  
Source Zimbabwe: Zimbabwe Tobacco Association "Weekly FCV Report 10.05.2015"

# U.S. Unmanufactured Exports of Flue-Cured Tobacco (stemmed) (lbs farm weight)



Source: USDA-FAS

# Real Commodity Exchange Rate Indices (monthly)



Source: USDA-ERS

# How responsive are NC Ag Export Products to Changes in Customer Exchange Rates and GDP?

| US Export Product | %Δ Exports/%ΔExchange Rate | %Δ Exports/%ΔGDP |
|-------------------|----------------------------|------------------|
| Total Ag Products | -0.507                     | 0.751            |
| Cotton            | -0.867                     | 1.792            |
| Tobacco Leaf      | <b>-0.543</b>              | -0.339           |
| Fresh Vegetable   | -0.547                     | 2.189            |
| Poultry           | -0.390                     | 5.251            |
| Red Meats         | -0.656                     | 4.651            |

## US Tobacco Exports

Dec 2016 Projected Index: 119.1  
Aug 2014 Index : 100.2



**18.9% Increase** in  
Exchange Rate Index



**10.2 % Decrease** in  
Tobacco Exports

**Implies US Flue-Cured Exports could decline from 262 million pounds for 2013-14 to 236 million pounds for 2015-16 marketing year; a 26 million pound decrease**

## Soybean Prices in Southeast Mato Grosso, Brazil

Soybeans are sold in Real (R\$) per sack  
A sack is 60 kg = 132.3 lbs = 2.2 bushels

|           | R\$/sack | R\$/bushel  | R\$/US\$ | US\$/bushel |
|-----------|----------|-------------|----------|-------------|
| 12/9/2013 | 72.6     | 32.93       | 2.322    | 14.18       |
| 12/7/2015 | 66       | 29.94 -9.1% | 3.879    | 7.72 -45.6% |

Source: Instituto Mato-grossense de Economia Agropecuaria



# What will it take for markets to improve?

- Lower production...lower supplies
- Strengthening and/or stabilizing global markets...in particular China and the EU
- Recovery of foreign currencies relative to the US\$....in particular strengthening of Brazil's currency, R\$

# Cost & Return Estimates for Major NC Crops

|   | Flue-cured Tobacco | Sweet Potato    | Peanuts          | Cotton           | Corn             | Soybeans         |
|---|--------------------|-----------------|------------------|------------------|------------------|------------------|
| <b>Price</b>  | <b>\$1.85/lb</b>   | <b>\$15/cwt</b> | <b>\$400/ton</b> | <b>\$0.60/lb</b> | <b>\$4.40/bu</b> | <b>\$9.00/bu</b> |
| <b>Yield/acre</b>                                     | <b>2200 lbs</b>    | <b>200 cwt</b>  | <b>3800 lbs</b>  | <b>891 lbs</b>   | <b>110 bu</b>    | <b>33 bu</b>     |
| <b>Revenue</b>  | <b>\$4,070</b>     | <b>\$3,000</b>  | <b>\$760</b>     | <b>\$535</b>     | <b>\$484</b>     | <b>\$297</b>     |
|   |                    |                 |                  |                  |                  |                  |
| <b>Operating Expense<br/>(land rent NOT included)</b> | <b>\$2,907</b>     | <b>\$2,500</b>  | <b>\$696</b>     | <b>\$543</b>     | <b>\$382</b>     | <b>\$237</b>     |
| <b>Return over Operating</b>                          | <b>\$1,163</b>     | <b>\$500</b>    | <b>\$64</b>      | <b>-\$8</b>      | <b>\$102</b>     | <b>\$60</b>      |
|   |                    |                 |                  |                  |                  |                  |
| <b>Fixed Cost</b>                                     | <b>\$514</b>       | <b>\$86</b>     | <b>\$133</b>     | <b>\$70</b>      | <b>\$72</b>      | <b>\$36</b>      |
| <b>Return to Land, Risk &amp; Mgt</b>                 | <b>\$649</b>       | <b>\$414</b>    | <b>-\$69</b>     | <b>-\$78</b>     | <b>\$30</b>      | <b>\$24</b>      |
|   |                    |                 |                  |                  |                  |                  |

# Coping with the downturn...

- Know your costs/ know your cash flow...create a plan
- Manage debt early
- Manage your equipment
- Preserve working capital...Cash is King
- Change will come...it always does
- What lessons can we carry forward to the good times?